# Formation for professionals in telehealth units - beyond professional training

Angélica Baptista Silva

PhD in Public Health; Oswaldo Cruz Foundation; National Institute of Women's Health; of the Child and Adolescent Fernandes Figueira.
Contact: silva.angelica@gmail.com; Av. Rui Barbosa; 716; 5th floor; Flamengo; Rio de Janeiro; CEP: 22250-020; Rio de Janeiro; Brazil.
Lattes: http://lattes.cnpq.br/0947912377089491 (Lead author)

Ana Cristina Carneiro Menezes Guedes

Master in Environmental Science; Federal Hospital of State Servants; Nucleus of Telehealth - Teaching and Research Division.
Contact: anamengue@gmail.com; Rua Sacadura Cabral; No. 178; Building of Ambulatories Health 5th floor; Rio de Janeiro; CEP: 20221-903 Rio Janeiro; Brazil.

Gláucia Regina Motta da Silveira Castro

Master in Health Sciences; Federal University of Rio de Janeiro; Coordination of Health Policies for Workers of UFRJ.
Contact: glauciacastro@glauciacastro.com; Maurício Jopert da Silva Street; Ilha do Fundão; Rio de Janeiro; CEP 21941-598; Rio de Janeiro; Brazil.
Lattes: http://lattes.cnpq.br/8706510958698141

Maria de Lourdes Tavares Cavalcanti

PhD in Women's and Children's Health; Federal University of Rio de Janeiro; Institute of Studies in Collective Health.
Contact: lourdes@iesc.ufrj.br; Av. Horácio Macedo; Ilha do Fundão - University City; Rio de Janeiro; CEP 21941-598; Rio de Janeiro; Brazil.
Lattes: http://lattes.cnpq.br/7563613684485105

Márcia Gomide da Silva Mello

Post-Doctor; Federal University of Rio de Janeiro; Institute of Studies in Collective Health.
Contact: gomide@iesc.ufrj.br; Horácio Macedo Avenue; Ilha do Fundão - University State; Rio de Janeiro; CEP 21941-598; Rio de Janeiro; Brazil.
Lattes: http://lattes.cnpq.br/4760030063940855

## Abstract

*Introduction: Telehealth is important to add and qualify the local healthcare systems. There are more than two thousand telehealth centres in Brazil, covering the primary care services, in special, the Family Health Care Program. They provide support to physicians and their teams in remote areas. Methods: Training and continuing education strategies for professionals qualified to handle telehealth technologies, which, in addition to the technical knowledge related to the equipment, act in the perspective of the universalization, equity and integrality of health care according to their context. Results: We present the experience in consolidating a telehealth training model, considering the technical and political-administrative dimension of the health system, broadening the field of action and reflection on ways of thinking and practice in telehealth. Discussion: It prioritizes the internalization dimension of the technician in the model of interprofessional collaboration, by compromising technical knowledge and ethical conduct.*
**Keywords:** Education Continuing; Computer Literacy; Video-Audio Media; Telemedicine.

## Resumen

*Formación para profesionales de unidades de telesalud – además de la capacitación de profesionales.*
*Introducción: La telesaud es fundamental para ampliar y calificar la atención a la salud. Se estima que hay dos mil puntos de telesalud en el territorio brasileño, cubriendo la atención básica, específicamente el Programa de Salud de la Familia, prestando apoyo a médicos y sus equipos en zonas aisladas. Métodos: Estrategias de educación permanente de profesionales habilitados para manejar las tecnologias, que actúen en la perspectiva de la universalidad, equidad e integralidad de la atención de acuerdo con este contexto. Resultados: Se presenta la experiencia en la consolidación de un modelo de formación en telesalud, contemplando la dimensión técnica y política-administrativa del sistema de salud con vistas a ampliar el campo de acción sobre los modos de formar la telesaud. Discusión: Se prioriza la dimensión de internalización del profesional en el modelo de colaboración interprofesional, contemporizando el saber técnico y la conducta ética.*
**Palabras-clave:** Educación Continua; Conocimientos en Informática; Medios Audiovisuales; Telemedicina; Tecnología de la Información.

Resumo

*Formação para profissionais de unidades de telessaúde – para além da capacitação profissional.*
*Introdução: A telessaúde é fundamental para ampliar e qualificar a atenção à saúde. Estima-se haver mais de dois mil pontos de telessaúde no Brasil, cobrindo a atenção básica, em especial, o Programa de Saúde da Família, prestando suporte clínico e pedagógico a médicos e equipes em diversos rincões. Métodos: Estratégias de formação e educação permanente de profissionais habilitados a manejar tecnologias de telessaúde, que, além do conhecimento técnico relativo aos equipamentos, atuem na perspectiva da universalização, equidade e integralidade da atenção à saúde foram delineadas de acordo com esse contexto. Resultados: Apresenta-se a estruturação e consolidação de um modelo de formação em telessaúde, contemplando o eixo técnico-político-administrativo do sistema de saúde com vistas a estender o campo de ação e reflexão sobre os modos de pensar/ fazer telessaúde. Discussão: Prioriza-se a dimensão de internalização do profissional no modelo de colaboração interprofissional, contemporizando saber técnico e conduta ética.*
Palavras-chave: Educação continuada; Conhecimentos em informática; Mídia audiovisual; Telemedicina; Tecnologia da Informação.

## Introduction

Telehealth as a type of health service, with the use of information and communication technologies in care, has increased exponentially in Brazil in the last few years. After a decade, the 900 telehealth places in nine federative units, goal of the Health Ministry pilot project in 2007, have overcome 1,500 places all around the territory[1].

The term telehealth has many meanings in the literature - including being used as a synonym to telemedicine, digital health and medical informatics in some interventions. We applied the wide concept from the World Health Organization that describes telehealth as the use of information and communication technologies for healthcare[2]. Although telehealth didn't configure itself as a policy, teleconsultancies, telediagnosis, various activities in tele-education and a fluorescent database of formational second opinion, fomented by this public network of telehealth centers are part of the daily basis of SUS workers[3].

Telehealth centers in the second and third care levels will be present in the hospitals of the main brazilian public universities in such context[4]. Connected to these centers there are more than 2 thousand telehealth places scattered throughout the country, covering Primary Care, especially, the Family Health Program[5], providing technical and pedagogical support to doctors and their teams in the most diverse corners.

In this eminent scenery a new profile of workers in the health field appears, called operator or technicians in telehealth. Usually, this professional is relocated from another administrative position and needs to acquire specific skills such as: operate videoconference's devices, maintain various computing equipments, acquire minimal knowledge in tele-education and online transmission, in addition to handle complex agendas with various demands.

However, this variety of workers doesn't have at their disposal a specific training oriented to such activities. The training proposal for professionals of telehealth units aims to fill this gap, in a way that this technician can perform all the operations of a telehealth system in the places, technological telehealth centers and other establishments from the Single Health System (SUS) and from the supplementary health.

In the decade of 2007-17, it was observed in these experiences that the connections between specialists and doctors from family and community health in telehealth centers, that are generally located in basic health units, have composed an audiovisual memory that feeds repositories for continuing education of the professional in service.

This material shapes the collection of open educational resources from the Universidade Aberta do Sistema Único de Saúde - the UNA-SUS (free translation: Open University of the Unique Health System), whose pilot project was implemented (2008) at the time[6] as part of the permanent education policy oriented towards the strengthening of Primary Care[7].

In order for these audiovisual records to have reproduction quality in many devices (from smartphones to giant screen) and follow the patterns of biosafety in the medical and diagnostic digital images transmitted in real time, it became necessary for this support professional to specialize in a specific knowledge, that will impact in the improvement of the provided to the population and in the assistance workflow as well as will aid him in the critical comprehension of his role and importance in this scenery.

In this way, the experience in the structuring and consolidation of a telehealth training model is presented, contemplating the technical and political-administrative dimensions of the health system aiming to increase the action field and the reflection about the ways of thinking/doing telehealth.

## Methods

The course in its first edition will be destined to telehealth professionals who are already serving in the hospital centers. This initial offer in 2018 covers the city of Rio de Janeiro, prioritizing the Federal University of Rio de Janeiro, Foundation Oswaldo Cruz and federal hospitals with teaching activities.

As main goal, the course addresses the basic principles of audiovisual training, telecommunication network´s infrastructure, operation of videoconference and telepresence devices to act with autonomy in the sceneries with telehealth, as well as reflect about its role on SUS and in the healthcare network's organization in the brazilian territory.

The proposal was elaborated according to assessment studies[8], official documents from the Federal Government from the period of 2008 to 2013 related to the theme tele-

health and telemedicine. The tesis and the consulted literature pointed to the emergence of this professional profile in SUS and its potentialities.

As of this necessity, the Telehealth Laboratory National Institution of Women's, Child's and Adolescent's Health Fernandes Figueira (IFF-Fiocruz) identified interlocutors in Rio de Janeiro's attention network and in the second semester of 2012, along with the teaching department, outlined the first pedagogical proposition with three main axes: collective health, audiovisual and notions of information technology with emphasis on networks.

Between 2013 and 2015, along with the area of health policies and planning, the elective course "Communication and Information Technology for Health Planning" was created, for students of the graduation course of the Institute of Studies in Collective Health from the Federal University of Rio de Janeiro (IESC-UFRJ). In 2016, meetings were held were there were defined the lines of work for an agreement of technical cooperation between the IFF-Fiocruz and the IESC-UFRJ to establish a new pedagogical proposal for administrators and technicians from the public telehealth centers in Brazil.

Other important contribution throughout the process was the insertion of the Telehealth and Telemedicine Center of the Coordination of Policies of the Worker's Health from UFRJ's Personnel Pro-Rector . It is a hybrid center (acting in worker's health in the university's management level), that works as the interface facilitator among the telemedicine/telehealth centers and the university's central administration. This way of insertion and the center's coordination being held by technicians and not by teachers, contributed with the technician's point of view and his daily challenges in the career, in addition to to being a link with the other 8 telehealth centers in the university's hospitals[9].

The focal object of this cooperation, involving students and professors from the graduation course and the Multi-professional Residency in Collective Health and Fiocruz's research group called "Telehealth and Health Systems", is the articulation with the serving telehealth activities, as well as the acquisition of specific skills in information and communication technologies (TIC) in health, that became a fundamental part of the students' formation in the area of collective health.

In this way, the discipline "Communication and Information Technology for Health Planning", with a workload of 60 hours and strong focus on the telehealth services started to integrate the group of optional courses from the graduation course in Collective Health, being taught for the first time in the second semester of 2016. In turn, the course for serving technicians, object of this analysis, was presented in 2017 and approved in an internal notice of extension courses promoted by the Ministry of Education for execution in the subsequent year.

## Results

It was established as the course's main goal to enable professionals in order for them to know how to conduct all telehealth system's operations in the telescientific centers and other SUS and supplementary health establishments. Nonetheless the telehealth manual[10] related the administrative assistant's functions, the general coordinator's functions and the computer support functions, and it is important to update this team's knowledge in order to manage the telehealth centers with quality.

This document and other health initiatives oriented towards this support and system management team aims to fulfill: the technical audiovisual and political-administrative knowledge from the health system, that necessarily the centers' operator must acquire in order to carry out their role appropriately.

The course's methodology predicts exhibiting and practicing moment, contemplating a mix of approaches: theoretical, conceptual and practical, with the oprojection of service training in different telehealth centers in the city of Rio de Janeiro and afterwards in other associated centers. The theoretical content will be offered in the IESC-UFRJ, in the computer lab. Regarding the theoretical-practical audiovisual module, the student will be able to count on the facilities of the cinematographic technicians' union and Fiocruz's.

As training ground, there will be available the telehealth center INI/Fiocruz, IFF-FRIOCRUZ's Telehealth Lab, Rute Center from the Servers Federal Hospital (HFSE-RJ), the Rute Center of the University Hospital Gaffree and Guinle (HUGG) and UFRJ's telemedicine and telehealth centers for the students' service training.In addition to the text reading, computers, videoconference devices, high definition videos capturing cameras, professional illumination and sound system equipment, audiovisual recording studio.

The course will be on-site with the participation of 15 students and managed according to the themes: health; audiovisual; videoconference and networks. The modules must be coursed in a current way and the total workload is of 120 hours.

The theoretical-conceptual module contains a learning unit called "SUS and the telehealth activities". Its objective is to present planning and health policies notions, reflect about the Unique Health System and the professional's supporting role to the telehealth services in Brazil, as well as the labour market opportunities in public health and supplementary to this kind of qualification.

The theoretical-practical module already counts with two learning units. The first unit is entitled "Audiovisual Technique". Its objective is to get to know the audiovisual tools and techniques in order to develop skills and abilities to be used in the telehealth services from SUS and from supplementary health. As for the second learning unit, its title is "Videoconference and Networks" and its proposition is to know the computer science's and telecommunication's eco-

system so that the student can develop skills to be used in services (Chart I).

Chart I - Summary of the programmatic content of the course for telehealth technicians

| Theoretical-Conceptual Module | Theoretical-Practical Module | Theoretical-Practical Module |
|---|---|---|
| Health | Audiovisual Technique | Videoconferences and Networks |
| The Unique Health System | Notions of script

Video edition and completion

Audio edition and completion

Audiovisual production

Assembly of cables and audio equipments

Archiving and integration of documents with videoconference

Plans and atmospheric lighting | Videoconference history

Audio, video, data and communication patterns. Components of the videoconference system

Kinds of connections and comparison Protocol H. 323 versus Session Initiation Protocol (SIP)

Multimedia ransmission requirements

Quality of service in videoconference

Videoconference behind the firewall and about network Address Translation (NAT)

Pattern Telecommunication Standardization Sector

(ITU-T) from the recommendation E.164 Numbering and Dial Plan

Gatekeeper installations and configuration (GnuGK) and Proxy (OpenSER)

Service provider, webconference solutions, etiquette tips and good practices for modulators |
| | History of Health in Brazil

Telehealth and Telemedicine

Information and Communication Technologies

Bioethics and Telehealth

Health promotion as a new healthcare paradigm

Health and hospital management planning | |

Source: The authors

Three egressed asistents from the optional graduation course in Collective Health will be responsible for accompanying the learning units and interviewing the students based in a semistructured script with open and closed questions. The script was elaborated along with the educational staff and with research of multidisciplinary nature. The tool has as objective to compare the experiences of working professionals to the content presented throughout the course.

## Discussion

When presenting the nuclear intention of a pedagogical proposal in telehealth it is important to explicit the premise that any teaching and learning process oriented towards the application of information and communication technology in the health services is linked to the strengthening of the paradigm of health promotion of the holistic view of the health-sickness process and of the intention to better the populations quality of life, as settled in Alma Ata in the seventies, present in the ideology of the brazilian sanitary movement in the eighties, and in the Unique Health System's ideology starting with the promulgation of the brazilian constitution in 1988[11,12].

The interaction between the interlocutors to develop this activity for SUS and the contextualization in the moment in what concerns politics, working processes and perspectives in the health field it is vital to comprehend this format of pedagogical intervention to the formation of the telehealth technician.

Beyond the professional training, it was chosen to investigate through the course with questions are in stake in the context of telehealth practices and to observe the human resources present in the market, in a formative evaluation proposal widely used in the health field[13,14,15] with the monitoring oriented by researchers and graduation students in the field of collective health.

Interlocutors with interface with the private market were contacted during this period and ended up not adhering to the proposal, claiming two reasons: it is unnecessary to add the theoretical module about health to technicians in a training; small number of students that can be trained in telehealth on-site, compared to what can be done in a massive long distance course.

In response to these two arguments, in addition to the newness of this initiative in Brazil, it is important to highlight the own Permanent Education in Health National Policy (PNEPS) in effect (2014)[16], that emphasizes the concept of permanent education as:

> (...) learning in work, where this and teaching are incorporated in the daily routine of organizations and into work. It is proposed that the training processes of health workers take as reference people's needs, sectoral management needs, and the social control in health, have as objective the transformation of professional practices and of the own work organization and be structured from the problematization of work .

As contextual milestone for the pressing need to execute this course, it is highlighted the implantation of the Mais Médicos Program by the Federal Government in 2013, with the objective to reduce the lack of doctors and the regional inequalities in health[17]. This activity enhanced to the work health managers the doctor's difficulties in handling the digital world, already considered by Haddad[18] and other researchers[19].

The group that conceived this pedagogical proposal assumes that education is not a synonym for teaching or training. The process of knowledge appropriation is heald according to the development of effective and real relationships of the subject with the world, determined by the historical and social conditions, from which it is part[20]. In this context, the health and education networks conform according to the project of power.One of the determining factors to promote the population's health is education.[21]

It is a conception of education in the ecology of knowledge, working innovative approaches against cognitive global injustice[22] where health is the responsibility of the whole multidisciplinary team that provides the health service, where interknowledge is produced, admitting the epistemological pluralism in which the scientific knowledge is partial and there is the need to search for dialogues between science and other locally produced knowledges. This multidis-

ciplinarity materializes in the interprofessional collaboration, that characterizes the innovations that the Centers of Family Health[23] add to SUS's Primary Care.

One of the fundamental dimensions of this interprofessional collaboration among the health teams is the internalization of the professional in service[24]. The proposal of this course is based in a liberating pedagogy that contrasts the banking education, when the student/professional can exert his skills with consciousness about his responsibility[25,26] in the whole process of population's assitency.

This way, the technician offers a good experience by videoconference, conscious of its political position as a citizen, not only pressing buttons in an automatic way. More than that, he aids the family health team to engage with the multiple artefacts from the information and communication technologies' ecosystem[27], aware of the importance of his technical knowledge and of his ethical conduct. He is also saving lives and providing that other health professionals exercise the clinical practice with more quality.

## Conclusion

It is expected that the implementation of this on-site course favours the comprehension and the field analysis of the formation of technical operators in telehealth.

When allowing the discussion of the theoretical-practical benchmarks from the telehealth systems, some elements extracted from the experience can subsidize: the identification of structural and organizational characteristics regarding the development of the capacitation process for the professionals of that field; subsidize the elaboration of mechanisms that favour the training process of technicians that are already serving in the telehealth centers; generate data for the management of the working processes instituted in the interior of the Telehealth Centers, contributing to the elaboration of maps and profiles of these units and providing subsidies for the structuring and organization of work strategies in the context of professional qualification in the Healthcare Networks, inside SUS.

The proposal and implementation of this course has the perspective to contribute for the analysis of how the Centers of Telehealth work and for the fortification of the professional training process for telehealth operators. The course will configure as an important tool in the creating and organization of intervention strategies, especially in the scope of the training and qualification of the telehealth practice.

## References

1. Silva AB, Carneiro ACMG, Síndico SRF. Regras do governo brasileiro sobre serviços de telessaúde: revisão integrativa. Planej Polít Públicas. 2015;44(1):168–88.

2. World Health Organization (WHO). Global Observatory of e-health. Atlas of e-health: Countries Profiles [Internet]. Geneva (Switzerland): WHO; 2009 [acess on 2017 Set 20]. Avaliable in: http://www.who.int/goe/publications/atlas/bra.pdf.

3. Haddad AE, Skelton-Macedo MC, Abdala V, Bavaresco C, Mengehel D, Abdala CG, et al. Formative second opinion: qualifying health professionals for the unified health system through the Brazilian Telehealth Program. Telemed J E Health. 2015 Feb; 21(2):138-42.

4. Silva AB, Moraes IHS. O caso da Rede Universitária de Telemedicina: análise da entrada da telessaúde na agenda política brasileira. Physis: Rev Saúde Colet. 2012;22:1211-35.

5. Oliviera DG, Souza WV, Novaes MA, Vidal SA, Frias PG, Vanderlei LCM. Análise da implantação do Programa Telessaúde Brasil em Pernambuco, Brasil: estudo de casos. Cad. Saúde Publica. 2015 Nov;31(11):2379-89.

6. Carvalho RA, Struchiner M. Conhecimentos e expertises de universidades tradicionais para o desenvolvimento de cursos a distância da Universidade Aberta do Sistema Único de Saúde (UNA-SUS). Interface (Botucatu). 2017;21(63):991-1003.

7. Mendes CR, Bessa JMS, Moura SDC, Aires FCH, Torres FO. Políticas de educação permanente e formação em saúde: uma análise documental [Internet]. Rev Rede Enferm. Nordeste. 2012;13(5):1100-10. [acesso em 2017 Out 02]. Disponível em: http://www.redalyc.org/html/3240/324027984015/.

8. Silva AB. Política pública, educação, tecnologia e saúde articuladas: como a telessaúde pode contribuir para fortalecer o SUS? 2013 [tese]. Rio de Janeiro: Escola Nacional de Saúde Pública Sergio Arouca, 2013.

9. Castro GRMS, Oliveira MLW, Melca F, Tavarez M, Freire R, Gomes R. Núcleo de Telemedicina da UFRJ: 2008-2015. In: Monteiro A, Neves JP, organizadores. A História da Telessaúde da Cidade para o Estado do Rio de Janeiro. Rio de Janeiro: EdUERJ. p.320-38. 2015. [livro digital em formato PDF]. Disponível em: www.telessaude.uerj.br/livro.

10. Silva AR, Siqueira ACS, Correa APB, Souza CF, Bavaresco CS, Roballo EC, et al. Manual de telessaúde: para atenção básica, atenção primária à saúde [Internet]. Brasília (DF): Ministério da Saúde; 2012 [acesso em 2017 Out 02]. [Série A. Normas e Manuais Técnicos]. Disponível em: http://www.lume.ufrgs.br/bitstream/handle/10183/140420/000851810.pdf?sequence=1.

11. Buss PM. Promoção da saúde e qualidade de vida. Ciên. Saúde Colet. 2000;5:163–77.

12. De Vos P, Van der Stuyft P. Determinantes socio-políticos de las políticas internacionales de salud. Rev Peru Med Exp Salud Publica. 2013;30:288–96.

13. Scriven M. Evaluation Thesaurus [Internet]. 4th ed. USA: SAGE Publications; 1991 [acess on 2017 Out 02]. Avaliable in: https://books.google.com.br/books?id=koL0Fs_ZSvQC

14. Hartz ZMA. Avaliação em saúde: dos modelos conceituais à prática na análise da implantação de programas [Internet]. 2a ed. Rio de Janeiro: Fiocruz. 132 p. 2000. [acesso em 2017 Out 13]. Disponível em: https://static.scielo.org/scielobooks/3zcft/pdf/hartz-8585676361.pdf

15. Champagne F, Brouselle A, Hartz Z, Contandriopoulos AP, Denis JL. A Análise de Implantação. In: Brousselle A, Champagne F, Contandriopoulos AP, Hartz Z. Avaliação: Conceitos e métodos. Rio de Janeiro: Fiocruz. p.217–38. 2011.

16. Brasil. Ministério da Saúde. Gabinete do Ministro. Portaria nº 198/GM/MS, de 13 de fevereiro de 2004. Institui a Política Nacional de Educação Permanente em Saúde como estratégia do Sistema Único de Saúde para formação e do desenvolvimento de trabalhadores para o setor e dá outras providências. Brasília: Ministério da Saúde; 2004.

17. Santos LMP, Girardi SN, Costa AM. Programa Mais Médicos: uma ação efetiva para reduzir iniquidades em saúde. Ciên. Saúde Colet. 2015;20(11):3547–52.

18. Haddad AE, Morita MC, Pierantoni CR, Brenelli S, Passarella T, Campos FE Formação de Profissionais de Saúde no Brasil: uma análise no período de 1991 a 2008. Rev Saúde Pública. 2010;44(3):5-9.

19. Castro Filho ED. Telessaúde no apoio a médicos de atenção primária [tese]. Porto Alegre: Universidade Federal do Rio Grande do Sul; 2011.

20. Vygotsky LS. A formação social da mente: o desenvolvimento dos processos psicológicos superiores. 4a ed. São Paulo: Martins Fontes, 1991.

21. Teixeira SF, Ouverney AM. Política De Saúde; Uma Política Social. In: Giovanella L, Escorel S, Lobato LVC, Noronha JC, Carvalho AI, organizadores. Políticas E Sistemas De Saúde No Brasil. Rio De Janeiro - R. J. Fiocruz. p.23-64. 2008.

22. Santos BS. Para além do Pensamento Abissal: Das linhas globais a uma ecologia de saberes. Rev Crítica de Ciências Sociais. 2007;78:3-46.

23. D'Amour D, Goulet L, Labadie J-F, Martín-Rodriguez LS, Pineault R. A model and typology of collaboration between professionals in healthcare organizations. BMC Health Services Research. 2008 Set 21;8(1):188.

24. Araújo EMD, Galimbertti PA. Interprofessional collaboration in the family health strategy. Psicol. soc. (Online). 2013;25(2):461–8.

25. Freire P. Pedagogia do oprimido. Rio de Janeiro: Paz e Terra; 2005.

26. Brighente MF, Mesquida P. Paulo Freire: from denunciation of a banking education to the announcement of a liberating pedagogy. Pro-Posições. 2016;27(1):155–77.

27. Silva AB, Morel CM, Moraes IHS. Proposta conceitual de telessaúde no modelo da pesquisa translacional. Rev. Saúde Pública. 2014;48(2):347–56.